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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,057	11/24/2003	Young-Joon Song	K-0090G	9126

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EXAMINER

KUMAR, PANKAJ

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/719,057

Applicant(s)

SONG, YOUNG-JOON

Examiner

Pankaj Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/24/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09373703/09376373 based on their patents.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 13, 14, 17 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12, 13, 16, respectively of U.S. Patent No.

6,721,299. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

3. As per claim 13, 6721299 claim 12 teaches all of the following limitations: A method of establishing a communication channel, the method comprising the steps of: generating a plurality of frames; and generating a 15 slots for each frame, each slot having a pilot signal of N-bits and a corresponding bit in each slot forming a word of 15 sequence of pilot bits such that there is N number of words, wherein the number of bit values of two pilot bits which are the same between two adjacent words from 1 to 15 slots minus the number of bit values of two pilot bits which are

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different between the two adjacent words from 1 to 15 is + 1 or -1. Claim 13 does not teach the other limitations recited in 6721299 claim 12. It would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of 6721299 claim 12 by not having the additional limitations as recited by the instant claims, because claim 13 of the current application suggests so and it is obvious to remove parts of an invention in the analogous art of communication.

4. As per claim 14, 6721299 claim 13 teaches all of the following limitations: A method of establishing a communication channel having at least one of frame synchronization and channel estimation, the method comprising the steps of generating a plurality of frames; and generating a L-number of slots for each frame, each slot having a pilot signal of N-bits and a corresponding bit in each slot forming a word of L-sequence of pilot bits such that there is N number of words, wherein each of a prescribed number of N number of words have a first prescribed number (b_0) of bit values equal to "0" and a second prescribed number (b_1) of bit values equal to "1" such that $b_1 - b_0$ is +1 or -1, wherein a pair of the prescribed number of N number of words is cross-correlated, and a pair of the prescribed number of N number of words is autocorrelated, such that maximum peaks at zero and middle time shifts, which are equal to each other and opposite in polarity, are formed. Claim 14 does not teach the other limitations recited in 6721299 claim 13. It would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of 6721299 claim 13 by not having the additional limitations as recited by the instant claims, because claim 14 of the current application suggests so and it is obvious to remove parts of an invention in the analogous art of communication.

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5. As per claim 17, 6721299 claim 16 teaches all of the following limitations: A communication link between a user equipment and a base station comprising a plurality of layers, wherein one of the layers is a physical layer for establishing communication between the user equipment and the base station and the physical layer has at least one of data and control information, one of the control information being a pilot field of N-bits transmitted for 15 slots such that N words of 15 bits are formed. 6721299 claim 16 does not teach wherein a pair of N words is cross-correlated and a pair of N words is autocorrelated. 6721299 claim 14 teaches a pair of N words is cross-correlated and a pair of N words is autocorrelated. It would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of 6721299 claim 16 with cross-correlation and autocorrelation of 6721299 claim 14 as recited by the instant claims, in order to reduce sidelobes as taught by 6721299 claim 14 in the analogous art of communication.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-16 are rejected under 35 U.S.C. 101.

8. In regards to claims 1-16, the claims disclose a process (method) that manipulates only number, abstract concepts or ideas or representing any of the foregoing, the claims are not being applied to an appropriate subject matter. (See Interim guidelines and MPEP 2106)

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Pankaj Kumar
Primary Examiner
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PK